NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Warm Up: 5.1

1. Jim and Sue have the same car. But they have different types of tires on their car. Sue has brand A, which has an average life of 60,000 miles and a standard deviation of 1500 miles. Jim has brand B, which has an average life of 75,000 miles and a standard deviation of 2300 miles. Sue’s current tires lasted 64,000 miles and Jim’s lasted 80,000 miles. Whose tires did better?? (assume both brands are normally distributed)
2. The life of AAA batteries is normally distributed with an average of 1080 hours and a standard deviation of 90 hours.
   1. A battery that lasts 1180 hours has a Z-score (standard score) of what?
   2. A battery that has a z-score of -2.7 lasted how many hours?
   3. What percentile is a battery that lasts 1000 hours?
   4. What percent of batteries last more than 1300 hours?
   5. What percent of batteries last longer than 1500 hours?
   6. What percent of batteries last less than 1500 hours?
   7. What percent of batteries last **between** 1100 and 1200 hours?